Reforming Governance
The avowed objectives of ‘sabka Sath, sabka Vikas, and sabka Vishwas’ and Prime Minister’s clarion call on achieving of 5 trillion dollar economy by 2024-25 necessitates putting in place a whole set of initiatives towards good governance.

Cooperative and Competitive Federalism
A number of initiatives have been taken to foster cooperative federalism through structured support of engagement with States/Union Territories on a continuous basis.
- Including meetings between Prime Minister cabinet ministers with all chief ministers.
- Sub groups of chief ministers on subjects of national importance.
- Sharing of best practices.
- Policy support and capacity development of state functionaries.
- Aspirational districts programme for development of 115 most backward districts.
- Theme based extensive engagements in various sectors.
- Framing model laws for land leaving and Agriculture Marketing reforms.
- Area specific interventions for North Eastern, himalayan states and Island development.
- Encouraging healthy competition transparent ranking in various sectors with the hand holding approach.
- Once districts complete amongst themselves, States would emerge stronger and when States compete amongst themselves, the nation becomes stronger.

Direct Benefit Transfer and Use of Aadhaar
- With Aadhaar now firmly in place especially in targeted delivery of subsidies, Direct Benefit Transfer continuous to make major inroads into policy and service delivery framework of the country.
- Aadhar and other laws (Amendment) Act 2019 provides a stronger regulatory Framework for operation of Aadhar and its voluntary use.

Outcome Based Monitoring
- There has been a structural change in the budget making process with removal of plan/Non-plan distinction, rationalisation of centrally sponsored and Central sector schemes.
- Major step in this direction is the introduction of outcome based budgets since Union budget 2017-18.
- Thrust now is on meeting the expectations of the people by focusing on outcomes and not merely on how much expenditure have been incurred under the respective schemes.
- There is greater thrust on creation of dashboards providing online and real-time data on schemes and their beneficiaries.

E-governance
Starting from biometric attendance of Government employees, digitising database of beneficiaries across all schemes, seeding with Aadhaar numbers, using POS machine for beneficiary authentication and finally transferring the funds to Aadhar linked bank accounts,
various initiatives have made mugged improvements in the way services are delivered to the public. Digital India program is centred on three key vision areas;

- Digital infrastructure as a core utility
- Governance and services on demand
- Digital empowerment of citizens

Besides, portals such as centralised public grievance redressal and monitoring system(CPGRAMS), the unified mobile application for new age governance (UMANG) and MyGov are in place providing information to citizens seeking feedback and resolving grievances.

**Administrative Reforms**

- Reforms in civil services are a continuous process and several initiatives have been undertaken, such as;
- Introduction multi-stakeholder feedback performance evaluation.
- Dispensing with interviews for lower level positions.
- Introduction of online mechanism for appraisals and filing of various returns by employees.
- Implementation of e-office.
- Strengthening training and merit based postings.

The strategy for new India @ 75 document of Niti Aayog has proposed transformative measures such as;

- Improving teeth to tail ratio.
- Promoting officer oriented culture
- Bringing down the number of civil services and allocating candidates as per competencies
- Encouraging lateral entries and specialisation
- Bringing down entry age
- Strengthening Municipal cadres
- Training and skill assessments
- Institutionalization of goal setting and performance evaluation
- Greater suo-moto disclosures
- Protection of civil servants, e-initiatives and probity.

**Law and Order**

- Though law and order is a state subject, Government of India would need to continue engaging States to Reform their policing. Some of the suggestions include;
- Adoption of Model Police Act of 2015
- Filling up of vacancies and greater representation of women.
- Reforms in FIR system with greater usage of IT
- Training/sensitization of police personnel and conducting a separate cadre for Cyber crimes crimes, cyber threats and fraud.
- There is a need to reduce criminalization by compounding of minor offences with steep penalties that act as a real deterrent.
- The court processes all across the country need to be automated with electronic court and case management.
- Redundant laws need to be repealed and new laws need to be written in a simple manner.
- Forensics and ballistics testing need significant improvements.
• All India judicial services examination on ranking basis and Indian legal service may also be considered.

The focus needs to move from litigation driven to creation of a law abiding society by sensitizing citizen’s right from the school level.

India is aligning its goals and target to achieve SDG objectives. While, Good governance is pervasive across all goals, Goal 16 specifically deals with access to justice and building effective accountable and inclusive institutions. This cannot be done by government alone and needs a collaborative approach of all stakeholders.

### Water Conservation as a National Movement

India has just 2.4% geographical area of the world while harbouring nearly one-sixth of the global population and the world's highest owner of livestock.

- Earth is predominantly 70% covered by water, only 2.5% is freshwater.
- India harbours only 4% of the world's freshwater resources.

Therefore water crisis and food insecurity attract special attention as these attain highest risk values going to burgeoning population, expansion and intensification of agriculture, rapid urbanization, industrialization and infrastructure development.

The country is expected to become water expressed as per capita surface water availability is on the decline.

### Water conservation primarily involves the following three objectives;

- **Enhance water availability** - This could be mainly achieved by adopting a mixed strategy focusing on the protection and restoration of natural ecosystems, increasing green cover, managing riparian forest buffers, adoption of water-efficient diversified agriculture and water budgeting, recycling and reuse.
- **Improve water quality** - This includes effective law enforcement and stringent regulations, pollution control restrictions on pouring of sewage, adoption of bioremediation techniques and prohibition on the use of toxics.
- **Reducing water related risks** - Adoption of integrated watershed management programme, flood control mechanisms, promotion of alternate income generation activities and sustainable livelihoods.

### Suggestions

- It is essential to **change from the business as usual approach** instead to earnestly work towards an accelerated effort to plan, manage and use the precious water resources.
- It is essential to **optimally revive traditional methods**, tools, techniques and best practices for rainwater harvesting and water use efficiency besides building resiliency to face water related risk.
- **Taking clue from several State's flagship programmes** related to water management like Mukhya Mantri Jal Swavlamban Abhiyan by Rajasthan government and Green Mahanadi Mission of Odisha Government focusing on water development in water starved desert region and rejuvenation of Mahanadi river respectively.
- **Participatory irrigation management** backed by the Pani Panchayat Act 2002 in Odisha is flourishing through efficient and equitable supply and distribution of water and ensuring optimal utilisation by farmers.
Way-Forward
In conclusion following 6 priority actions are visualised for making water management sustainable;

- **Institutions and governance** - strengthening and augmentation of Manpower and financial resources through a platform to bring their efforts together for synergistic outcome.
- **Participatory approach** - Seeking involvement and empowerment of people so they can establish a mechanism to implement and enforce judicious use of water.
- **Knowledge Management** - Development and exchange of evidence based knowledge on ecosystem functions. The development of nature based solutions for various aspects of water management offer better opportunities.
- **Ecosystem based management** - A shift from isolationist approach to Holistic approach through greater focus on river basins and riverscapes for planning, assessment and interventions.
- **Continuous care** - Concerted efforts towards conservation of existing water sources as well as rejuvenation of depleted water resources.
- **Capacity development** - Creating awareness through specialised agencies for preparing the blueprint for budgeting the water resource within the framework of the legislation on the subject and then formulate a strategy for its successful implementation.

Best practices for Ground Water Harvesting

**Dobha construction for rainwater harvesting - Jharkhand**
Dobhas are indigenous structures for water conservation which can be used for irrigation purposes during non-rainy months. Construction of 1 lakh dobhas was taken up by the state government in mission mode during 2016 in order to deal with water conservation in the wake of severe heat and poor rains.

**Kapil Dhara construction of dug Wells under MGNREGA - Madhya Pradesh**
Construction of dug Wells for irrigation purposes and various water conservation structures like check dams, stop dams, contour trenches have enabled farmers to irrigate their fields.

**Farm Pond on Demand Scheme - Maharashtra**
Farm Ponds reduces dependence on groundwater, reduces the power required to pump water, cultivation on bunds generate extra income and recharge groundwater.

**Jalyukta Shivar Abhiyan - Maharashtra**
This includes arresting rainwater within the village boundaries, increasing groundwater level creation of decentralized water bodies, rejuvenation of the old water storage structures, increasing area under protective irrigation, desilting of structures with people participation and sensitization among the people.

**Sujalam Sufalam Jal Sanchay Abhiyan - Gujarat**
The aim was to increase the storage capacity of existing reservoirs by desilting of check dams and deepening the Ponds, lakes and river beds.

**Mission Kakatiya - Telangana**
A program for restoring all the minor irrigation tanks and lakes to enhance agriculture-based income for small and marginal farmers, strengthening community-based irrigation management.
Skills for a $5 Trillion Economy

India has a distinct advantage today over its competitors in terms of the age of the working population. With half of its population below the age of 25, the country has the world's youngest population.

- India is also slated to go through a phase of a sharp slowdown in population growth in the next two decades as pointed out in the economic survey for 2018-19.
- This means that while the country as a whole will enjoy the demographic dividend phase, parts of it will witness the transition to an aging society by 2030s.

The big challenge today therefore is of converting this transition into word dividend. There are various processes and pathways to do this;

- **Education for all** - Expansion of Higher Education and specific professional courses would be the key initiatives.
- **Skill development** for entry level jobs for those either in education or in employment or out of education and Employment.
- **Upskilling and reskilling** those who have been educated and have worked or are working, for those who have worked and are out of job to meet the skill requirements of the new jobs or changed jobs.

NSSO report 2011-12 found that only 2.3% of the total workforce in India had formal skill training. Early steps were taken when the national skill development Policy was initiated in 2009 and the national skill development fund and the national Skill Development Corporation was established under the ministry of finance.
NSDC contribution

- It has acted as a catalyst in skill development by engaging in 235 private sector partnerships for training and capacity building.
- To enable those enrolled in schools to obtain skills Vocational Training in 10 states is being coordinated by NSDC.
- It launched a recognition of prior learning scheme to enable those who are in work to obtain a certificate that serves as a recognition of their skill level and helps them in the labour market.
- To enable India to be the skill capital of the World Youth are being trained for specific skills for Overseas markets.
- To enable industry lead competency building, 38 sector skill councils are there some of which are promoted by FICCI.
- To assist youth to understand and decide on which skills they require counselling centres many of them as PPP have been setup.
Impact

- PMKVY on employment shows that training and certification has led to a 9% increase in proportion of employed individuals.
- Certification has been found to have an impact of 9% on the mean monthly income.
- Many training organisations have started using PMKVY qualifications to meet the needs of employers.

The skills ecosystem that has been created code also address the needs of those forms who find it difficult to identify the right people to employee by developing the qualification pack for the job role.

Steps taken to improve job orientation of Higher Education

Higher education system has many educational streams which are directly job-oriented. Further, in order to enhance job orientation and employability, the following steps have been taken:

- There are 1109 **skill oriented courses** being run by the University Grants Commission (UGC) and the All India Council for Technical Education (AICTE) through 556 institutions, in which 38414 students are receiving Skill training with education.
- **New and updated vocational curricula** are being developed in line with industry demand in B.VoC. programmes.
- AICTE has launched an **Internship portal** to facilitate industry internship to students.
- **Internship has been made mandatory** for students of engineering colleges.
- **Wheebox Employability Skill Test (WEST)** for all pre-final and final year graduates of AICTE approved institutions to identify the core strengths of students and certify the same.
- **Technical Education Quality Improvement Programme (TEQIP)** Phase-III is under implementation to enhance quality, equity and employability in selected engineering education institutions.
- **National Career Service (NCS) portal** has been launched as a common platform to bring together stakeholders like job seekers, employers, counsellors, local service providers and trainer etc. to facilitate convergence of information and link job seekers with job providers.

MHRD is working in co-operation with the Ministry of Skill Development and Entrepreneurship (MSDE) and Sector Skill Councils (SSCs) which comprise representatives of Industry, and Service Sectors to develop curricula that reflect industry – demanded skills so that higher education can be linked with employment opportunities.

Transforming Indian Health Systems

By mid of 2019, health sector in India has arguably crossed the policy formulation exchange and is in the early stages of implementation.

- National health policy 2017 has provided a concrete shape giving direction to the health sector and has universal health coverage as its central goal.
- The period of 2017-20 have the potential to become the second wave of health system reforms in India if policy initiatives started after killed up and implemented well.
It is also a time when India is completing conventionally accepted 15-year policy to implementation cycle.

In 2002 India had released 2nd National health policy which was followed by the announcement of National Rural Health Mission in 2005.

**Box 1. Key Health Sector-related Developments in India since Year 2002**

<table>
<thead>
<tr>
<th>Year</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>National Health Policy (NHP-2002)</td>
</tr>
<tr>
<td>2005</td>
<td>National Rural Health Mission (NRHM)</td>
</tr>
<tr>
<td>2008</td>
<td>Rashtriya Swasthya Bima Yojana (RSBY)</td>
</tr>
<tr>
<td>2008</td>
<td>Jan Ausadhi Yojana (Relaunched as Pradhan Mantri Bhartiya Jna Aushadhi Pariyojana (PMBJAP) in 2016</td>
</tr>
<tr>
<td>2009</td>
<td>National Rural Drinking Water Programme (NRDWP)</td>
</tr>
<tr>
<td>2008-17</td>
<td>State Specific social health insurance schemes for specific target Populations</td>
</tr>
<tr>
<td>2010</td>
<td>The Clinical Establishment (Registration and Regulation) Act, 2010</td>
</tr>
<tr>
<td>2013</td>
<td>National Urban Health Mission (NUHM)</td>
</tr>
<tr>
<td>2014</td>
<td>Swachh Bharat Mission(SBM)</td>
</tr>
<tr>
<td>2014</td>
<td>National Mental Health Policy</td>
</tr>
<tr>
<td>2015-16</td>
<td>Task Force on Strengthening primary health care (PHC) in India</td>
</tr>
<tr>
<td>2017</td>
<td>National Mental Healthcare Act</td>
</tr>
<tr>
<td>2017</td>
<td>National Health Policy (NHP-2017)</td>
</tr>
<tr>
<td>2018</td>
<td>POSHAN Abhiyan/National Nutrition Mission</td>
</tr>
<tr>
<td>2018</td>
<td>Ayushman Bharat Programme (ABP) with two components of (a) Health &amp; Wellness Centres (HWC) and Pradhan Mantri Jan Arogya Yojana (PMJAY)</td>
</tr>
</tbody>
</table>

**Put Primary Health Care (PHC) First**

- National health policy 2017 has proposed to **use two-thirds or more of government spending on PHC system**.
- It has proposed to **increase overall utilisation of government health services** from 30% to 50%.
- PHC makes health services efficient, reduces the cost and helps in increasing provision of preventive and promotive Health Services.
• **They can tackle up to 80% of health needs** and can reduce the need for specialised health services.
  
  • WHO has proposed that this is possible through preventive interventions through;
    ✓ Primary care and essential care Public Health functions as the core of integrated health services.
    ✓ Multi sectoral policies and actions to tackle social determinants of health.
    ✓ Empowered people and communities.

**Stronger health systems through stronger PHC system**

• **Redesign PHP system based upon available local evidence**
  
  Study of best performing PHC in 4 states of India i.e. kerala, Tamil Nadu, Maharashtra and Meghalaya have identified;
    ✓ An assured package health services with limited intention to availability gap.
    ✓ Appropriate mix and sufficient availability of providers.
    ✓ Continuum of care with functional referral linkages.
    ✓ Initiative to achieve quality standard.
    ✓ Stronger local level leadership.
    ✓ Similar interventions, approaches and countries such as Brazil, Ghana and South Africa have shown good or promising outcomes.

• **Correct the inverted pyramid of Health Services provision and utilisation**
  
  ✓ A large proportion of health services in India are delivered and used at secondary and tertiary level. Ideally, these services should be available at the PHC level facilities.
  
  ✓ The pattern of service utilisation and delivery is thus inverted.

![Diagram of health services provision and utilisation]

• **Start focused initiatives to tackle social determinants of health**
  
  ✓ A lot of determinants for better health like improved drinking water supply and sanitation, better nutritional outcomes, health and education for women and girls, and safer roads are outside the purview of health ministry.
  
  ✓ There is a need for multi-sectoral planning and health in all policies approach where initiatives of different departments and Ministries are developed and planned in coordination, accountability is assigned and progress monitored jointly.

• **Establish sub-district based health system in India**
✓ An effective planning of health services and tackling inequalities in health outcomes need a Sub District unit level planning.
✓ Every block level can have a hospital, Public Health unit and the planning for health services should be done at this level.
✓ A sub district base health system needs to have population linked and registered at the facilities.
✓ To way referral linkage with secondary and tertiary level facilities should be adopted.
✓ PHCs should be team based approach and not a doctor centric models.
✓ Funding for PHC based upon as proportionate of state budget possibly mandated by law is needed.

- **Strengthen Urban Health governance for multi-sectoral collaboration**
  ✓ India have increasing Urban population and expected to reach 60 crore by 2030.
  ✓ An effective and functioning coordination has to be developed to improve Urban Health governance in Indian states and major cities.

- **Use of behavioural Economics for better health outcomes**
  ✓ This is needed to ensure that people seek early care to prevent complete and late stage diseases and seek care at the appropriate level which will reduce burden from higher level of facilities.
  ✓ This has worked for swachh Bharat mission and Beti Bachao beti padhao initiatives.

- **Focus on public health cadre**
  ✓ Many countries have dedicated cadres and workforce to deliver Public Health Services.
  ✓ Thailand has a vast cadre of health workers delivering preventive and promotive Health Services.
  ✓ TamilNadu, West Bengal and Maharashtra have a dedicated cadre and a few more Indian states are considering the same.
Conclusion

It will be important that available local evidence are used to reform PHC system. This will ensure that India achieve Universal health coverage as envisaged in the national health policy 2017 as well as achieve health-related sustainable development goals well before the proposed timeline of 2030.
Infrastructure Development for the Next Generation

Energy
The government's ongoing energy sector policies aim to provide access to affordable, reliable, sustainable and modern energy. It also intends to hit the following milestones;

- Make available 24/7 power to all by 2019
- Achieve 175 gigawatt of renewable energy generation capacity by 2022
- Reduced imports of oil and gas by 10% by 2022-23

Some of the major challenges on achieving the milestones are;

- **Overall energy** - A variety of subsidies and taxes distort the energy market and promote the use of inefficient fuels and also make Indian exports and domestic production uncompetitive as energy taxes are not under GST.
- **Power** - Industrial/commercial tariffs and the cross subsidy region have affected the competitiveness of the industrial and commercial sectors.
- **Oil and gas** - Lack of market-driven gas prices for old fields disincentives further production. Also the gas pipeline infrastructure is not adequate.
- **Coal** - There is a tendency to expand open cast mining and discourage underground operation even for better quality coal reserves.
- **Renewable energy** - High energy cost result in reneging on old power purchase agreements and erode their sanctity. This leads to uncertainty regarding power off-take and consequently endangers further investments.
- **Energy Efficiency** - Limited technical capabilities, high initial capital expenditure limited market and other issues have affected effort to achieve Energy Efficiency.

Way forward

- **Overall energy** - oil, natural gas, electricity and coal may be brought under GST to enable a level playing field.
- **Power** - All PPAs including those with state generation companies should be based on competitive bidding. For agriculture and upfront subsidy per acre of land through direct benefit transfer may be considered instead of providing separate subsidies for fertilizers, electricity, crop insurance etc.
- **Oil and gas** - It is important to provide for a common and open access to gas pipelines and separate the development and regulatory functions of PNGRB. In addition providing for shared infrastructure for evacuation of oil and gas from small and scattered onshore and Offshore fields.
- **Coal** - Detailed exploration through exploration-cum-mining leases based on production/revenue sharing model must be taken up.
- **Renewable Energy** - central level agencies should socialize the costs of balancing inter-state transmission systems connected power plants over the entire system on the lines of the point of connection.
- **Energy Efficiency** - Promote the mandatory use of LED and the replacement of old appliances in government buildings with 5-star appliances. The number of appliances covered under the standard and labelling (S&L) program should be increased. Widen and deepen the Perform, Achieve and Trade (PAT) programme, make energy saving certificate trading under the PAT scheme effective by ensuring strict penalties against defaulters.

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Transport

Roads
India is the world's second largest road network and most dense among countries according to size.

Objective to be achieved by 2022-23;
- Improve the regulatory framework for roads to achieve better compliance, seamless connectivity, road safety and quality.
- Reduce the number of road accidents and fatalities by 50% by 2020.
- Increase connectivity by expanding the road network and achieve the targets of Bharatmala & Pradhan Mantri Gram Sadak Yojana.

Challenges
- Capacity - Existing length of national highway network is 2.2% of the country total Road network.
- Maintenance - Regular preventive maintenance has to be an integral element of road and investment.
- Land acquisition - Existing land laws should be amended to complete infrastructure projects at a fast pace.
- Interagency coordination - Horizontal and vertical inter-agency cooperation is needed for planned land use to ensure intermodal connectivity.
- Funding - Sources for road funding are principally commitment from gross budgetary outlays.
- Institutional Arrangements - Large number of institutions and agencies are responsible for design construction operation and maintenance at all levels of government.

Way forward
- Increase connectivity by expanding the road network, improve infrastructure in Meghalaya and mizoram and enhance connectivity with inter-state roads and international borders and Chardham Mahamarg Vikas Pariyojna.
- Improve Road maintenance and safety - Maintain national highway (NH) assets by adopting a maintenance management system.
- Streamline land acquisition - Sensitize stakeholders to iron out details of land acquisition as detailed in the 2017 guidelines issued by MORTH.
- Skill Development - Introduce vocational training courses on road construction in industrial training institutes and ensure stringent testing of driving skills.
- Increase emphasis on research and development (R&D) - Earmark 0.1 percent of MORTH's annual budget for R&D. Establish a transport data centre at the national level for applied research on roads.
- Increase the capacity and reach of public transport - Transform State Road Transport undertakings and promote public transport, rural transport and last mile connectivity.
- Expand the reach of electronic toll collection (ETC) system - Streamline the FASTag charging system and engage with stakeholders and concessionaires to ensure that all Toll Plazas have the requisite infrastructure for ETC.

Railways
The Indian Railways is the third largest railway network in the world under a single management and is the fourth largest network in the world in terms of route kilometre.
Objective to be achieved by 2022-23;
- Augment the capacity of existing Railway infrastructure
- Increase the speed of infrastructure creation from the present 7 kilometer per day to 19 kilometer per day.
- Achieve 100% electrification of broad gauge track by 2022-23 from the 40% level in 2016-17.
- Increase the average speed of freight and mail express trains to 50 km/hr from about 24 km/hr.
- Improve the safety of Railways achieving zero fatalities.
- Enhance service delivery achieving 95% on time arrival.
- Increase the share of non-fare revenues in total revenue to 20%.

Challenges
- Over stressed infrastructure with 60% plus roots being more than hundred percent utilised leading to a reduction and average speed of passenger and freight trains.
- Negligible non fare revenues and high fried tariffs have led to a sub-optimal freight share.

Way forward
- Prioritise ongoing projects to improve capacity utilisation and timely completion of these projects will generate more revenue.
- Maintain and upgrade the existing network to ensure that supply keeps up with demand.
- Feeder routes should be developed simultaneously to Dedicated Freight Corridor.
- Opening of the ownership and operations of freight terminals and ownership of locomotives and rolling stock.
- Consider transferring coach and locomotive manufacturing and repairs to the private sector.
- Monitise land resources with the railways particularly through developing non railway revenues such as retail or other activities.

Civil Aviation
The world economic forum’s Global Competitiveness Report, 2018 ranks India as 53rd out of 140 world in air transport infrastructure.

Objectives
- Enhance the affordability of flying to enable and increase in domestic ticket sales from 103 million to 300 million by 2022.
- Double cargo handled from about 3.3 million tonnes to about 6.5 million tonnes.
- Expand the Maintenance, Repair and Overhaul (MRO) industry.
- Expand airport capacity more than 5 times to handle 1 billion trips near.
- Enhance availability and affordability of regional air connectivity and revive/upgrade unserved airports and helipads through the regional connectivity scheme.
- Ensure that airport tariffs, taxes on fuel, landing charges, determined in an efficient, fair and transparent manner.

Challenges
- Adequate hanger space and availability of land to expand airport at their current sites particularly in major cities are needed.
- Skilled workers - About 0.25 million person will need to be skilled over the next 10 years.
- Aviation Turbine Fuel (ATF) is a relatively expensive in India.
- The number of Aviation safety violations needs to be controlled.
Way Forward
- **Enhance aviation infrastructure** - Complete the planned airports under the UDAN initiative in a time bound manner in addition to completing two new airports for Delhi and Mumbai by 2022.
- **Increase investment** in the sector through financial and infrastructure support.
- **Increase skilled manpower** - Promote collaboration between original equipment manufacturers (OEMs), industry and educational Institutes to teach the latest concepts in the aviation industry.
- **Ease regulatory environment for airports** - Adopt a consistent model for tariff determination so that it reduces passenger cost and align taxation and pricing structure to global benchmarks by considering bringing aviation turbine fuel under the GST.

Ports and Shipping and Inland Water Transport (IWT)

**Objectives**
- Double the share of freight transported by coastal shipping and inland waterways from 6 to 12% by 2025.
- Increase the port handling capacity
- Reduce the turnaround time at major ports from about 3.44 days to about 1-2 days.
- Increase the throughput of inland waterways.
- Augment the capacity of Inland water transport by increasing the least available depth.

Ports and Shipping
- Around 90% of India's external trade by volume and 70% by value are handled by ports.
- It is the most cost effective and mode of transportation.
- Sagarmala programme focuses on modernizing and developing ports, enhancing port connectivity, supporting coastal communities and stimulating port land industrialisation.

Inland Waterways
- It carries less than 2% of India's organised freight traffic and negligible passenger traffic.

Challenges
- A minimum draught depth of 18mts is needed to enable mother vessels to dock at ports.
- It is difficult to attract capital for building inland vessels as it is a significant investment.

Way forward
- Dredging Market to open up attracting more player’s particularly international players.
- Expedite the completion of various projects under sagarmala.
- IWT should be integrated to multimodal connectivity.

Logistics
The contemporary definition of logistics involve the integration of information, transportation, inventory, warehousing, materials handling and packaging.

**Objectives**
- Achieve multimodal movement of cargo on par with global logistics standards.
- Reduce the logistics cost to less than 10% of GDP from the current level of 14%.
- Expand the logistics market to USD 215 billion by 2020 from the current level of USD 160 billion.
• Improve logistics skilling and increase jobs in the sector to 40 million by 2022 from about 22 million.

**Challenges**
Absence of last Mile connectivity and infrastructure, competition and underutilized capacity, lack of interoperability of software systems used by the authorities governing different modes of transport leads to an increase in transit time.

**Way forward**
Rationalise tariff and determine prices in an efficient manner across different modes, create an overarching body that maintains a repository of all transport data to internal stakeholders and conduct robust analysis of the data.